NOISE RESISTANT SMALL SIGNAL SENSING CIRCUIT FOR A MEMORY DEVICE

ABSTRACT OF THE DISCLOSURE

Apparatus and method for data sensing circuitry that uses averaging to sense small differences in signal levels representing data states. The apparatus periodically switches the coupling of input terminals and output terminals of an integrator circuit from a first configuration to a second configuration, where the second configuration changes the polarity of the integrator circuit from the first configuration. The output signals of the integrator circuit are periodically compared, and based on the comparison, output signals having a voltage representative of a value are generated. The values of the output signals are then averaged over time to determine the data state.